Thin oxygon can only bo derived from the metallic oxides, but not from lime, as was formerly supposed. The elimination from tho iron talcus place possibly according to the formula

The resultant phosphate of iron is, however, not able to withstand the action of the reducing agents, since both its components arc able to be very easily reduced. It is, therefore, only stable HO long as it is in such highly oxygenous simmmdingB that all reducing agents present are more easily able to satisfy thoir ailhiity for oxygen from these than from the phosphate of iron itself, and therefore are not compelled to have recourse to attacking this. :

In the acid open-hearth furnace, the removal of phosphorus is prevented because any iron phosphate is decomposed by the excess o£ the silica present, whereby the free phosphoric acid is again reduced back into the iron. On the contrary, the removal of the phosphorus from the iron easily takes place hi the basic opon-hearth furnace, in the presence of largte amounts of oxides, but in order that the phosphorus may be combined in the slag and prevented from re-entering into the metal, it is necessary that it should be transformed into the stable form of lime phosphate, and indeed earlier than the excess of those oxides is used up by the reducing agents. Lime phosphate arrests the action of reducing agents, but the amount of silica in the slag may only be such that the phosphoric acid will not be again converted into the free state, since in this case it will again bo reduced, as in the acid furnace.

IL II. Campbell states, that in so-called recarburisation, that is to say, in a process in which the reducing agents in the iron are suddenly increased in amount, the following amounts of phosphorus are returned to the metal from slags containing the following respective amounts of PaOs and

Add* coiitaint l*t*r cant,	Ml in «lng. Pur (Hint.	P rotumed ftxjm tho slag. Maximum, Por e«nt.	Moan. Per eont.
"Under 5	not above 20	0-01	not above 0*00
„ 5— 10	» 19	0-025	„ 0-005
„ 10- 15	17	0-02	,, 0-005
„ If) 20	12	0-02	O'Ol